

Comparisons of Job Characteristics

Focus Occupation: [Electrical Engineers \(17-2071\)](#)

Associated Occupation: [Electrical and Electronics Repairers, Powerhouse, Substation, and Relay \(49-2095\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 75

Focus Occupation: Electrical Engineers (17-2071)

Associated Occupation: Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	17.1	12.9	<< Extensive education and/or training may be required
Design	5.2	13.2	21.5	>> Current knowledge level is likely more than sufficient
Public Safety and Security	6.9	12.7	9.6	<< Extensive education and/or training may be required
Computers and Electronics	8.4	12.2	17.7	>> Current knowledge level is likely more than sufficient
Physics	4.3	10.1	15.3	>> Current knowledge level is likely more than sufficient
Telecommunications	3.9	10.0	7.2	<< Extensive education and/or training may be required
Engineering and Technology	5.7	9.3	22.4	>> Current knowledge level is likely more than sufficient
Building and Construction	4.0	8.4	8.2	0 Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 33

Focus Occupation: Electrical Engineers (17-2071)

Associated Occupation: Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Equipment Maintenance	3.5	11.4	5.5	<< Extensive development of skills in this area may be required

Repairing	3.4	11.1	5.3	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	10.7	8.8	<	A higher skill level may be required
Quality Control Analysis	5.9	10.2	7.9	<	A higher skill level may be required
Operation Monitoring	6.6	10.0	9.1	0	Current skill level may be sufficient
Equipment Selection	3.3	5.6	4.4	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 80			
Focus Occupation: Electrical Engineers (17-2071)					
Associated Occupation: Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Arm-Hand Steadiness	6.8	10.3	5.8	<<	Extensive improvement in abilities may be required
Visualization	7.5	10.1	8.1	<	Some improvement in abilities may be required
Control Precision	6.6	10.0	5.0	<<	Extensive improvement in abilities may be required
Selective Attention	8.7	10.0	8.7	<	Some improvement in abilities may be required
Finger Dexterity	7.6	9.8	7.3	<<	Extensive improvement in abilities may be required
Manual Dexterity	6.5	9.4	5.1	<<	Extensive improvement in abilities may be required
Visual Color Discrimination	6.4	9.3	7.5	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 55
Focus Occupation: Electrical Engineers (17-2071) Associated Occupation: Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)		
Work Activities	Exclusivity of Activity	
Analyze test data	64	
Perform safety inspections in industrial, manufacturing or repair setting	32	
Prepare reports	8	
Read blueprints	10	
Read schematics	34	
Read technical drawings	7	

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: n/a

Focus Occupation: Electrical Engineers (17-2071)

Associated Occupation: Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)

Tools and Technologies	Exclusivity
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Tools and technology data is unavailable for one or both occupations.	
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Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.